

ICF Consulting / Laboratory Data Consultants

Environmental Services Assistance Team, Region 9 1337 South 46th Street, Building 201, Richmond, CA 94804-4698

Phone: (510) 412-2300 Fax: (510) 412-2304

SFUND RECORDS CTR 88072800

# **MEMORANDUM**

TO:

Nancy Riveland-Har

Remedial Project Manager Cleanup Section 4, SFD-7-4

THROUGH:

Rose Fong

ESAT Project Officer

Quality Assurance (QA) Office, PMD-3

FROM:

Doug\_Lindelof

Data Review and QA Document Review Task Manager Environmental Services Assistance Team (ESAT)

ESAT Contract No.: 68-W-01-028

Task Order No.: B01

Technical Direction No.: B0105086 Amendment 1

DATE:

May 6, 2002

SUBJECT:

Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE:

Omega Chem OU-2 09 BČ LA02

SITE ACCOUNT NO.:

CAD042245001

CERCLIS ID NO.: CASE NO.:

11-BCCO-15.0

SDG NO.:

01J260

LABORATORY:

EMAX Laboratories, Inc. (EMAX)

ANALYSIS:

Volatiles

SAMPLES:

8 Water Samples

COLLECTION DATE: October 30, 2001

REVIEWER:

Denise McCaffrey, ESAT/LDC

The comments and qualifications presented in this report have been reviewed by the EPA Task Order Project Officer (TOPO) for the ESAT Contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

**ESAT File** 

SAMPLING ISSUES: [X] Yes

[]No

### **Data Validation Report**

Case No.:

11-BCCO-15.0 SDG No.: 01J260

Site: Laboratory: Omega Chem OU-2 EMAX Laboratories, Inc.

Reviewer: Date: Denise McCaffrey, ESAT/LDC May 6, 2002

## I. <u>Case Summary</u>

## SAMPLE INFORMATION:

Samples: GW401-PP067-0046, GW401-PP068-0058,

GW401-PP069-0060, GW401-PP069-1060, GW401-PP070-0093, GW401-PP071-0084, GW401-PP072-0088, and GW401-PP072-2003

Concentration and Matrix: Low Level Water

Analysis: Volatiles

SOW: SW-846 Method 8260B

Collection Date: October 30, 2001
Sample Receipt Date: October 31, 2001
Extraction Date: Not Applicable

Analysis Date: October 31 and November 1, 2001

FIELD QC:

Trip Blanks (TB): GW401-PP072-2003

Field Blanks (FB): Not Provided Equipment Blanks (EB): Not Provided Background Samples (BG): Not Provided

Field Duplicates (D1): GW401-PP069-0060 and GW401-PP069-1060

# METHOD BLANKS AND ASSOCIATED SAMPLES:

MBLK1W: GW401-PP067-0046, GW401-PP068-0058,

GW401-PP069-0060, GW401-PP069-1060, GW401-PP070-0093, GW401-PP071-0084DL, GW401-PP072-0088DL, and GW401-PP072-2003

MBLK2W: GW401-PP067-0046DL, GW401-PP069-0060DL,

GW401-PP069-1060DL, GW401-PP071-0084,

and GW401-PP072-0088

TABLES:

1A: Analytical Results with Qualifications

1B: Data Qualifier Definitions for Organic Data Review

#### **SAMPLING ISSUES:**

Detected results for chloroform are qualified as nondetected and estimated (U,J) due to contamination in trip blank GW401-PP072-2003.

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not performed because no MS/MSD sample was designated in this sample delivery group (SDG).

### ADDITIONAL COMMENTS:

Dichlorofluoromethane was not analyzed. This compound is included in the REAP DQI Table.

The REAP DQI Table specified that four surrogate spikes (Toluene-d8, BFB, 1,2-dichloroethane-d4, and dibromofluoromethane) are required. Only three surrogate spikes (Toluene-d8, BFB, and 1,2-dichloroethane-d4) were used by the laboratory. The accuracy of the analytes were assessed based on the same grouping of surrogates and internal standards used by the laboratory.

Tentatively identified compounds (TICs) were not reported by the laboratory.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Data Quality Indicator (DQI) Table for *Volatile Organic Compounds (VOCs)* by SW-846 Method 8260, Appendix B, Attachment 2, Section J, Contract No. 68-R9-00-11, Regional Environmental Analytical Procurement (REAP);
- EPA SW-846 Method 8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996;
- ESAT Region 9 Standard Operating Procedure 901, Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages; and
- USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999.

## II. Validation Summary

	Acceptable/	Comment
HOLDING TIMES	YES	
GC/MS TUNE/GC PERFORMANCE	YES	
INITIAL CALIBRATIONS	YES	
CONTINUING CALIBRATIONS	· NO	С
LABORATORY BLANKS	NO	В
FIELD BLANKS	NO	В
SURROGATES	NO	D
LABORATORY CONTROL SAMPLE/DUPLICATE	YES	
MATRIX SPIKE/DUPLICATE	N/A	
INTERNAL STANDARDS	YES	
COMPOUND IDENTIFICATION	NO	G
COMPOUND QUANTITATION	YES	A, E, F
SYSTEM PERFORMANCE	YES	, ,
FIELD DUPLICATE SAMPLE ANALYSIS	YES	
N/A = Not Applicable		

#### III. Validity and Comments

- A. The following results, denoted with an "L" qualifier, are estimated and flagged "J" in Table 1A.
  - All results below the contract required quantitation limits

Results below the contract required quantitation limits (CRQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

- B. The following results are qualified as nondetected and estimated due to method blank and trip blank contamination, and are flagged "U,J" in Table 1A.
  - Chloroform in samples GW401-PP067-0046, GW401-PP068-0058, GW401-PP069-0060, GW401-PP069-1060, GW401-PP071-0084, and GW401-PP072-0088
  - Toluene in samples GW401-PP067-0046, GW401-PP068-0058, GW401-PP069-0060, GW401-PP069-1060, GW401-PP071-0084, GW401-PP072-0088, and GW401-PP072-2003

Chloroform was found in trip blank GW401-PP072-2003 at a concentration of 0.67  $\mu$ g/L. Toluene was found in method blanks MBLK1W and MBLK2W at concentrations of 0.36  $\mu$ g/L and 0.33  $\mu$ g/L, respectively. Results for the samples listed above are considered nondetected and estimated (U,J) and the quantitation limits have been increased according to the blank qualification rules presented below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for the common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result (U,J). If the sample result is less than the CRQL, the result is reported as nondetected (U,J) at the CRQL.

A laboratory method blank is laboratory reagent water analyzed with all reagents, surrogates, and internal standards and carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during preparation and analysis.

A trip blank is laboratory reagent water which is shipped from the laboratory to the field with the empty sample containers and back to the laboratory with the filled sample containers. A trip blank is intended to detect contaminants introduced during the transport of the samples to the laboratory, although any laboratory introduced contamination will be present. Contaminants that are found in the trip blank which are absent in the laboratory blank could be indicative of a problem in transportation, storage, the bottle preparation procedure, or other indeterminate error.

- C. Detected results and quantitation limits for the following analytes are qualified as estimated due to large percent differences (%Ds) in the continuing calibrations, and are flagged "J" in Table 1A.
  - Acetone in samples GW401-PP067-0046, GW401-PP068-0058, GW401-PP069-0060, GW401-PP069-1060, GW401-PP070-0093, GW401-PP072-2003, and method blank MBLK1W
  - Hexachlorobutadiene in all samples and method blanks

A %D of 37.3% (biased high) was observed for acetone in the continuing calibration performed on October 31, 2001. %Ds of 34.3% and 36.8% (biased low) were observed for hexachlorobutadiene in the continuing calibrations performed on October 31, 2001 and November 1, 2001, respectively. These values exceed the ±30.0% validation criterion.

The continuing calibration checks the instrument's performance daily.

D. Detected results and quantitation limits for the following analytes are qualified as estimated due to surrogate recovery outside QC limits, and are flagged "J" in Table 1A.

{1,2-Dichloroethane-d4}

- 1,1-Dichloroethane in samples GW401-PP068-0058, GW401-PP069-0060, and GW401-PP069-1060
- 1,1-Dichloroethene in samples GW401-PP067-0046, GW401-PP068-0058, and GW401-PP070-0093
- trans-1,2-Dichloroethene, vinyl chloride, and methyl t-butyl ether in samples GW401-PP069-0060 and GW401-PP069-1060
- Trichlorofluoromethane and freon 113 in samples GW401-PP068-0058, GW401-PP069-0060, GW401-PP069-1060, and GW401-PP072-0088
- Chloroform in sample GW401-PP072-2003

Surrogate recoveries exceeded the QC limits are shown below for the samples listed above.

<u>Sample</u>	<u>Surrogate</u>	% Recovery	QC Limits
GW401-PP067-0046	1,2-Dichloroethane-d4	116	85-115
GW401-PP068-0058	1,2-Dichloroethane-d4	118	85-115
GW401-PP069-0060	1,2-Dichloroethane-d4	116	85-115
GW401-PP069-1060	1,2-Dichloroethane-d4	119	85-115
GW401-PP070-0093	1,2-Dichloroethane-d4	118	85-115
GW401-PP072-0088DL	1,2-Dichloroethane-d4	122	85-115
GW401-PP072-2003	1,2-Dichloroethane-d4	117	85-115

Detected results for affected analytes may be biased high. The samples were not re-analyzed.

Surrogates are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples. All samples are spiked with surrogates prior to purging. Surrogates provide information about both the laboratory performance on individual samples and the possible effects of the sample matrix on the analytical results.

- E. Samples GW401-PP067-0046, GW401-PP068-0058, GW401-PP069-0060, and GW401-PP069-1060 were analyzed at 5-fold dilutions due to the high level of target analytes. The CRQLs listed for these samples in Table 1A have been multiplied by the dilution factors.
- F. Sample GW401-PP071-0084 was analyzed at a 25-fold dilution due to the high level of freon 113. The result for freon 113 is reported from the diluted sample in Table 1A; results for all other analytes are reported from the undiluted sample.

Sample GW401-PP072-0088 was analyzed at a 25-fold dilution due to the high levels of trichlorofluoromethane, trichloroethene, tetrachloroethene, and freon 113. Results for trichlorofluoromethane, trichloroethene, tetrachloroethene, and freon 113 are reported from the diluted sample in Table 1A; results for all other analytes are reported from the undiluted sample.

Sample GW401-PP067-0046 was analyzed at a further dilution of 50-fold due to the high level of tetrachloroethene. The result for tetrachloroethene is reported from the 50-fold diluted sample in Table 1A; results for all other analytes are reported from the original analysis, performed at a 5-fold dilution.

Samples GW401-PP069-0060 and GW401-PP069-1060 were analyzed at further dilutions of 50-fold due to the high levels of 1,1-dichloroethene and cis-1,2-dichloroethene. Results for 1,1-dichloroethene and cis-1,2-dichloroethene are reported from the 50-fold diluted samples in Table 1A; results for all other analytes are reported from the original analyses, performed at a 5-fold dilutions.

G. Acetone was detected in the sample GW401-PP072-0088 at a concentration of 26  $\mu$ g/L. However, the presence of acetone cannot be verified by the data reviewer because of the high concentration of freon 113 (240  $\mu$ g/L) in the sample.

I-BCCO-15.0 SDG No.: 01J260

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

Date: May 6, 2002

QUALIFIED DATA Concentration in ug/L Analysis Type: Water Samples for Volatiles by

EPA Method 8260B

Station Description : GW401-PP069-0060 D1 Sample ID GW401-PP067-0046 GW401-PP068-0058 GW401-PP069-1060 D1 GW401-PP070-0093 GW401-PP071-0084 GW401-PP072-0088 10/30/01 Collection Date 10/30/01 10/30/01 10/30/01 10/30/01 10/30/01 10/30/01 Dilution Factor: Result Volatile Compound Val Com Result Val Com 1,1-Dichloroethane Ε 2.5L ADE 110 DE 100 J DE 1U 1U 1U 380 5.4 1.1-Dichloroethene 12 DE DË EF 390 EF. 1.8 D 7.2 Sec. Ε 5U Е Ε 1U 1,1-Dichloropropene 5U 5U Ε 1U 1U Ε 1,2,3-Trichloropropane ÆΕ \*5U \* 5U 5U E 5U E \*\*\* 1U ĩÙ 10 wayyari <u>ar -</u> differ 1,2,4-Trimethylbenzene 5U Е 5U Ε 5U Ε 5U Ε 1U 10 1U 10U Ě W/Ţ ŽU 1,2-Dibromo-3-chloropropane 10Ú 10Ü Ε 100 E 2U 2U Ε 5U 5U Ε 5U Ε 1,2-Dichlorobenzene 5U 1U 10 1U 2.5U \_\_\_\_\_13 1774 1,2-Dichloroethane E E. ₩0.5U 2.5U ·E· 12 E 0.5U 0.5U 5U Ε 5U Ε 5U Ε 5U Е 1,2-Dichloropropane 1U 1υ **5**U ΈĨ \* 5U 5U Ε 5U E . 1Ü 1,2-Dibromoethane 1U 5U Ε 5U Ε 5U E 5U Ε 1,3,5-Trimethylbenzene 1U 1U 1U E. Ĕ. 1;3-Dichlorobenzene 5U Ε 5U" 5U: E 5U 1U \* 1⊍ 10 ارزنور 5U Ε 5U Ε 5U Ε 5U Е 1U 1,3-Dichloropropane 1U **1U** 5Ú W. 10 1,4-Dichlorobenzene 5U E Ε. 5U Ε 5U E 1U 10 dil 2.2-Dichloropropane 5U Е 5U Е 5U E 5U Ε 1U 10 1U 1U. É .5Ů E 5U .⇒.5Ů , 5U 1Ù 2-Chlorotoluene ^ Е Ė 1U Ε Benzene 5U Ε 5U 5U Ε 5U Ε 10 1U 1U Æ Ě **5**∪ 10 Bromobenzene Ė ,5U 5U . 5U E 10 1U 5U Ε 5U Ε 5U Ε 5U Ε Bromochloromethane 1U 1U 1U Bromodichloromethane \*<u>\*</u>,5U Ē 5Ù E 10 ....E. 5U ∘..1Ų 1U 5U Ε 5U Е 5U ε 5U Ε Bromoform 1U 1U 1U Ε 5U Bromomethane 3 λ.**//** 5U ΞE E 10 5U <u>5U</u> E 1Ú JÙ. 2.5U Е 2.5U Е 2.5U Ε 2.5U Ε 0.5U 0.5U 0.5U Carbon Tetrachloride Chlorobenzene ์ 5ีป ÅΕ E 5Ú 5U E 5U E 10 10 1U Chloroethane 5U Ε 5U Ε 5U Ε 5U Ε 1U 1U 1U ) × 5บู้ BE 5U) Chloroform 5Ú ΒE 5U BE BE 10 1Ü В 1U В Chloromethane 5U Ε 5U Ε 5U Ε 5U Ε 1U 1U 1U ำับ 5Ù Е ે;5U (180 Е 340 ΕF 350 EF 1U cis-1'2-Dichloroethene 0.541 A Dibromomethane 5U Е 5U E 5U Ε 5U Е 1U 1U 10 E -5U 10 Dichlorodifluoromethane 5U 5U Е E -5U E ್ಲು10 10 E Ε m/p-Xylenes 5U Ε 5U 5U 5U Ε 1U 1U **1U** É 5Ü 5U E 5Ú Е 5Ú 3% 1Ú n-Bulylbenzene ..E.« £ Ε 5U Ε 5U Ε 5U 5U Ε 1U 10 1U o-Xylene Ė 5U 10 Ε E 5Ü 5U Ε 5<u>U</u> 1U 1U sec-Butylbenzene 5U Ε 5U Ε 5U Ε 5U Ε 1U 1U 1U tert-Butylbenzene trans-1,2-Dichloroethene **%5**U 1.9E AĎE 1.71 ADĖ 1U 1U

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

SDG No.: 01J260

Date: May 6, 2002

QUALIFIED DATA
Concentration in ug/L

Analysis Type: Water Samples for Volatiles by

EPA Method 8260B

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Val - Validity. Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

SDG No.: 01J260

Tier 3 Table 1A

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

Date: May 6, 2002

QUALIFIED DATA

Analysis Type: Water Samples for Volatiles by

Concentration in ug/L

EPA Method 8260B

Station Description :	Ĭ			Method Blank			Method Blani			ľ								_			
Sample ID :	GW401-PP07	2-2003	тв							CRQL											
Collection Date :	10/30/01									0.1142			l			•					
Dilution Factor :	1			1	1																
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1,1-Dichloropropene	10	W 22 - 22	,	10			10			1	-	-									
1,2,3-Trichloropropane	1U.	Ž.	ii 132	10		- 22mm	🦠 1U	<u> </u>	100	1.	. 22 .				*	es de la cal			Basic	- 1 m	
1,2,4-Trimethylbenzene	1U ≪. ⇒ %	~		1U			10	g	, w	. 1			ma jampan saga			or or or or			was now as a particular to a		
1,2-Dibromo-3-chloropropane	20			_ ₹ 2∪			2U			<u>. 2.</u>	e a sariginari.			1.2.2.2.	22.				31 22.	عند سند	
1,2-Dichlorobenzene	1U			1U	8	~	10	a astori		1		#0.FL/1.04F						·		majorgi no m	प्रशासन्त्र स्थापन
1,2-Dichloroethane	0.5U	عنسند	<u> </u>	0.50	2	×	0.50,	<b></b>	<u> </u>	<b>₩</b> 0.5	~~~~·····		<b>≫:</b> < <u>∠</u> ∴∴x :		Mir.		2:1			<u>Pákit</u>	
1,2-Dichloropropane 1,2-Dibromoelhane	1 <u>U</u> 31U		et Till 1	1U		<b>%</b> I.	1U 1Ú			1		T · T	্ৰুক্ত ক্	a year o	×		382			SILT	
1,3,5-Trimethylbenzene	10		د ئىد ىن	1U		195	1U	n.L.	سنسنت	1	isak	۔۔ ' سے		**		A. Transfer		· X	A		KF 65
1,3-Dichlorobenzene	10		nan	10		Apple American	10		41000	1	a. 23.	٠ , ٢	The second	**		1 77.7%	,	. ~~~ 0	7 37		
1,3-Dichloropropane	10			1U	Certical Comme	Weekles		SE 1991 A 1991 A 19		1		***************************************	, ma. A	A							***************************************
1,4-Dichlorobenzene	1U,			1U			1U 1U			1		150	E.C	Sa		100 m 100 m	256	*		da santa	30.5
2,2-Dichloropropane	1U			10			1U	***	m ,	1							The same same	111500-1011		Maria event	
2-Chlorotoluene	1U .	60, 73% 	1 . 1850.5 Janes :	10	eš©		10	200	معشق	1	Security Sec		<b>*</b>		· ·		C. Aller	£			le sal
Benzene	1U		******	1U		980	1U			1		***************************************				the spinors in recovery to the parameter	Megra court to the		annual magazine (c. c) com co		
Bromobenzene	å 1U	1	6.	1∪	2/4	W.L.	10	Sa. Jan	·	1.	u X	<u>.</u>	· 설ː	Si da di		· 1 . 15				ندر س	. Šá
Bromochloromethane	10	### T	78.7	10			1U			1		ক্ৰড়েছ্		ummenten, ha	Ed. m		222		,		
Bromodichloromethane	# ye. 1U	٠	30	10	i 395a	100	10	M. C.					·v			13.2		<b>*</b> 1.7	Law 13		: Ca2)
Bromonethane	1U	· (		10		År	1U 1U	7.77 <b>7</b> 7		1				S.					536		
Bromomethane Carbon Tetrachlonde	0.5U	2:3	36	0.5U	<b>*</b>	a	0.5U	E			land A.	. 4.	5	<u> </u>	42				. Sac	· ' ' /4	, il
Chlorobenzene	1 <u>U</u>		7	10	<b>-</b>		2111 V 1994	<del> •</del> ·:·		0.5	*	7:3	**. · · · · · · · · · · · · · · · · · ·	2 35 - CK		₹ 15 °					
Chloroethane	10		1	10	1		10		×	i'		1440C	38: T	- 08	e idi	~		( <b>%</b> . /		1	1
Chloroform	0.67L	j	, AD .	10			1U	1	\$ 1	1		145	:	. ,	,5,	f : *	1.3 K				93 .
Chloromethane	1U			. 1U	1		1U		~^	1			1.00	. »					, ,	X	
cis-1,2-Dichloroethene	1U	]	*	10	ķ	l	10		].	1				l '							;
Dibromomethane	10			10		l	1U	l		1								l l		1	ľ
Dichlorodifluoromethane	10	Ĭ	1	10		i	1U			1										Ĭ	1
m/p-Xylenes	10	AB 100,00		10			1U			1			,	,	,	ec 2007 - 1 , 1100					
n-Butylbenzene	i		ž	ÌŲ.	w ii		1 <u>U.</u>				9 i.		n d'armenn saktime a	) 	ign San a war ig			,			
o-Xylene				10		777	1 <u>U</u>			1	;· @r			g					as 1 may be as many 41.5		
sec-Butylbenzene		104		. 0 10		Day 1	, 1Ü	4.45	7.6	1	mas.	٠		f'	۵			يمانيين ،			Ř
terl-Butylbenzene	10			10		6	. 1U	: 13		1.	1 1 15.			7		1.860			Zi A	٠.,	13 17
trans-12-Dichloroethene	<u>∲</u> \$ ≥10	1 1 1	. 2 <sub>54</sub>	್ಯ <u>ಪ್ರಿ</u> 10ರ	4 C. A	· ½ ` ·	1U	Barrier	· Par	1	لــــا	si.		`	a)	***************************************		ليسيا	Salar Commence	L	2.80

SDG No.: 01J260

Tier 3 Table 1A

Site: Omega Chem OU-2

Lab: EMAX

Reviewer: Denise McCaffrey, ESAT/LDC

Date: May 6, 2002

QUALIFIED DATA Concentration in ug/L Analysis Type: Water Samples for Volatiles by

FP

EPA Method 8260B

Station Description :	Γ.		•	Method Blank	,		Method Blan	,					r						<del></del>		
Station Description : Sample ID :	GW401-PP07	2-2003	TR			MBLK2W			CRQL			l									
· ·	10/30/01		,,,	W.D.C.Y.Y.Y			MBENEVV	mberter?										•			
Dilution Factor :	1			1	Ļ		1	, l			1										
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Trichlorofluoromethane	1U			1U			1U			1											
Vinyl Chloride	2U			2U	, "Y		2U		* 2"	2,		1627		23							
Acetone	10U	J	C	10U	J	C	10U			10									•		
2-Butanone	10U	in the second	<b>3</b> 3	<b>₹</b> 10U			100			10		3.34	2 / mar - mar	*							<b>*</b> 39
Carbon Disulfide	1U_	y	J., .	10		orrecor .	1U	****	43.00	1				. , .							
Toluene	10	ليف	В	0.36L	J:	A	0.33L		<u>x <b>A</b></u>	1.						2 #	نا الله	:	32		index more
Trichloroethene	1U ]	,		10		inally in	1U	no agre	. 19K			,	Section 1		·····	88 - ROTE C.	.70%.0	: 46.	· compressor		or ongen
Chlorodibromomethane	38. 1U	4.	99° .	₹ <u></u>		AB AD CAME	<u>" " 10</u>		· · · ·				30.000	· · · · ·			1 6 W. C.	.anmaásam			
4-Chlorotoluene	10		Zuste	1U		÷	1U		***** 3,3	1 71 . \$75.			makeri m		170000	2 <b>8</b> 8 1,5 51 €	1.		Marie Company	540°°	No
Tetrachloroethene	10	<u> </u>	***	<u> </u>							· Aller	Samuel addition	24	٠.:ــــــــــــــــــــــــــــــــــ	. ــــــــــــــــــــــــــــــــــــ	******	1 21	<u> </u>	ــــــــــــــــــــــــــــــــــــــ		
Freon 113	10	,		10			1U		79763	1	The.	·* .	aleks. o. m.	~ .			]	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	WALT AT	Ç 4.	7 36
Ethylbenzene	<u>1U</u>		الاست. الاست.				1U	:	*	1			The state of the s				10	W '- '- '- '-		***	1.7%
Hexachlorobutadiene	1U	\$ 1200 mg	C	1U	J ************************************	C	1U	27 7 7 J	C	1	W. 45	gr: 11			Nation Co.		8 .	<b>\$</b> 7 9	<b>20</b> > 5000		
Isopropylbenzene		94	200	an water commen			1 <u>U</u>			<u>%1</u> .	1000						L	ř.			
p-Isopropyltoluene Methylene Chloride	10		and also	10		<i></i>	1U		unig State de la			y.		9 <b>33 V</b>	75.77		7 - 57	:q. : 1		5 5	
Naphthalene	. ₹1U 1U		. گ	1U			1U	. D. 9.41					ia	¥. 31.11.						<u> </u>	
n-Propylbenzene	310			10	30. 32xi	TO SECUTION OF THE PARTY OF THE	) 1U			15		310.5	and the second second					T			 85. : 30
Styrene	1U	l		1U	]		1U		CONT.	1											
1.1.1.2-Tetrachloroethane	1U		ra.	1U			10	· · · · · · · · · · · · · · · · · · ·		1;	34			6	, , , , , , , , , , , , , , , , , , ,	<u> </u>		(T) (T) (T)			
1,1,2,2-Tetrachloroethane	1U			1U	l		. 1U	. ,,		1										1	
1.2.4-Trichlorobenzene	້ຳມູ		Bank )	1U,		£.	∳ 1Ų	4	1	1	2007. 1266. July	_ 1		·	223						
1,2,3-Trichlorobenzene	1U			1U			1 <u>U</u>	g.,		. 1	/may10 a		## PA	White in	**:	pt					
1,1,1-Trichloroethane	10	Ý.		1U		₩.	1U_			. 1		·						Sinci		S. S.	and go
1,1,2-Trichloroethane	1U			1U			1U			1		w -wwy.regores									
Methyl t-Butyl Ether	10	٧.	<u>.</u>	1U			10	£		1			· &					2			
Dichlorofluoromethane	NA		****	NA		<u>.</u>	NA NA			NA			72777	. 6.444 11							w
		h. ::::::::::::::::::::::::::::::::::::	<u> </u>	**************************************	206	bxx	Carlo Marie	1 55	9.50	e e e e e e e e e e e e e e e e e e e	des.					1663	5		s, <u>b</u>	la in	

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

#### TABLE 1B

# DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," February 1994.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.